REMARKS

The changes to the drawings proposed above are made to replace informal drawings with formal drawings. The changes to the specification are made to correct obvious typographical and grammatical errors. No new matter is added.

Attached hereto is a marked-up version of the specification proposed by the current amendment. The attached page is captioned "Marked Up Version of the Prior Specification".

If for any reason the Examiner feels that consultation with Applicant's attorney would be helpful in the advancement of the prosecution, she is invited to call the telephone number below for an interview.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-0831.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Foster et al.	ART UNIT: Not Yet Assigned
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FOR:	APPARATUS AND METHOD FOR MAT PROTECTION OF NON-THERMAL PLASMA REACTOR	

MARKED UP VERSION OF THE PRIOR PENDING SPECIFICATION

Please amend/replace the original paragraph beginning on page 7, line 7 of the specification as follows:

An alternate embodiment of non-thermal plasma reactor 10 is illustrated by way of example in Figure 6 using retaining device 50. Reactor 10 further includes an insulating layer 28 disposed between housing 12 and substrate 18. As discussed above, substrate 18 is held in housing 12 with adequate spacing, to isolate the housing and the substrate to prevent electrical arcing. Insulating layer 28 further insulates electrically active area [19] 21 and voltage port 20 from housing 12 such that the spacing between the housing and the substrate is reduced to about 6mm to 9mm. Accordingly, a reduction in size and cost of reactor 10 is achieved through the use of insulating layer 28. Preferably, layer 28 is a layer of mica or other electrically insulating material. In one embodiment layer 28 is placed between housing 12 and substrate 18 during assembly. In alternate embodiments layer 28 is sprayed, printed or the like onto housing 12 and/or substrate 18 prior to assembly of reactor 10.

Please amend/replace the original paragraph beginning on page 9, line 18 of the specification as follows:

Ends 14 include an enhanced diffusion header 98 disposed at inlet 15

and outlet 17 of housing 12. More specifically, header 98 is in close proximity to overlap 94. Preferably, header 98 is in a range of about 0.5mm to 1.5mm from overlap 94. More preferably, header 98 is about 1mm from overlap 94. Thus, header 98 and stop 92 act as a diffuser to direct the flow of exhaust gas into opening 36 and to minimize the amount of exhaust gas that contacts mat 16. Mat 16 in this area is also compressed to a high density so it is resistant to erosion. Thus, stops 92 avoid placing the high compressive loads from mat 16 on weak areas 40. Moreover, the cooperation of overlap 94 and ribs 96 with substrate 18 more evenly distributes the axial and radial compression from mat 16 to areas 42 and 44 of substrate 18. In the embodiment of Figure [14] 13, stops 92 are formed as separate pieces. Conversely, in the embodiment of Figure [15] 14 stops 92 are formed as a single piece.

Please amend/replace the original paragraph beginning on page 10, line 27 of the specification as follows:

Referring now to the embodiment of Figures 16-18, substrate 18 is further retained in housing 12 by a retaining device [106] 108. Retaining device [106] 108 is a rigid insulation board disposed at areas 40 of substrate 18. Thus, retaining device [106] 108 minimizes forces on areas 40, and provides a "stop" for mat 16 used at each end of substrate 18. Thus, retaining device [106] 108, compresses mat 16 to a density above 0.3 grams/cc by placing the mat between the end plate 14 and the retaining device during assembly of reactor 10. Accordingly, retaining device [106] 108 provides sealant 82 to further protect mat 16.